New Construction

Primary energy need : 64.6 kWh/m².an
(Calculation method : RGD du 31 août 2010 - bâtiment fonctionnel)

ENERGY CONSUMPTION

<table>
<thead>
<tr>
<th>Building Type</th>
<th>Cost/m²</th>
<th>Construction/refurbishment cost</th>
<th>Net Floor Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>School, college, university</td>
<td>2348.88 €/m²</td>
<td>5 719 512 €</td>
<td>2 435 m²</td>
</tr>
</tbody>
</table>

Certifications :

The municipality of Strassen has appointed the “Energy and circular economy” Department of Simon-Christiansen & Associés to prepare a call for tenders for the construction of a new school in modular construction with DGNB certification. Planning, tendering and evaluation was carried out in cooperation with the Office of Tecnca s.à.r.l Simon-Christiansen & Associés was responsible for thermal insulation, energy efficiency of building services, durability, user comfort (acoustic insulation, interior acoustic, thermal, visual, ...) and the terms of the contract.
Data reliability
Self-declared

Stakeholders

Contractor
Name: Administration Communale de Strassen
Contact: Claude Feipel
https://www.strassen.lu/

Construction Manager
Name: Tecna
Contact: Mauro Parruccini - mauro.parruccini@tecna.lu
http://tecna.lu/

Stakeholders
Function: Assistance to the Contracting Authority
Simon-Christian & Associés
Samuel Majerus - samuel.majerus@simon-christiansen.lu
https://www.simon-christiansen.lu/

Function: Construction company
Alho
Adama Pakoumé Yéré - adama.yere@alho.com

Energy

Energy consumption
Primary energy need: 64,60 kWhep/m².an
Primary energy need for standard building: 115,90 kWhep/m².an
Calculation method: RGD du 31 août 2010 - bâtiment fonctionnel
Final Energy: 30,70 kWhel/m².an
Breakdown for energy consumption:
Final energy (kWh / m²a): - Heating 14.4- DHW 1.7- Lighting 3.5- Ventil. mecha. 7.5- Cold 2.8- Aux energy. 0.8
More information:
Actual consumption data is not yet available.

Envelope performance
Envelope U-Value: 0.24 W.m².K⁻¹
More information:
- Facade: steel construction with mineral fiber insulation U = 0.176 W / m²K - Roof: steel construction with mineral fiber insulation U = 0.141 W / m²K - Slab against earth: steel construction with fiber insulation inside and PUR outside (against the ground) U = 0.174 W / m²K
Building Compactness Coefficient: 0.41
Indicator: EN 13829 - q50 = (en m3/h.m3)
Air Tightness Value: 0.68

Renewables & systems

Systems
### Heating system:
- Urban network
- Radiant ceiling

### Hot water system:
- Individual electric boiler

### Cooling system:
- Others
- Radiant ceiling

### Ventilation system:
- Double flow heat exchanger

### Costs

### Contest

**Reasons for participating in the competition(s)**

- construction rapide
- bâtiment certifié DGNB
- bâtiment flexible

**Building candidate in the category**

Energie & Climats Tempérés

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